# Maintaining glycemic control in youths with type 2 diabetes: a study

Health & Medicine



# **Experimental and quasi-experimental studies**

## An experimental study article

The experimental study that will be considered in this case will focus on clinical trial to maintain glycemic control in youths who are having type 2 diabetes. The study was authored by Today study Group (2012). The increasing prevalence of diabetes type 2 among youths has very little data available, which will provide a clear focus and understanding under which it would be possible to develop an effective treatment. The study therefore incorporated three treatment regimens in order to achieve glycemic control among youths having type 2 diabetes. The inclusion strategy of the participants included patients suffering from type 2 diabetes between 10 and 17 years. The patients were treated with metformin in order to attain a glycated hemoglobin level of less than 8 percent.

The study compared metformin monotherapy with two approaches where one combined metformin with rosiglitazone and the other combining metformin with an intensive lifestyle intervention program. The three groups were compared in order to determine the most appropriate clinical approach to treatment of type 2 diabetes. The group containing metformin only was considered as the control groups where the other two groups were tested. The participants in the study were randomly assigned to the study in order to improve validity and reliability of the findings. The study was able to determine that monotherapy with metformin was linked with lasting glycemic control in more than half of the participants. The addition of rosiglitazone was superior to metformin alone.

### Quasi-experimental study article

The quasi-experimental article that is considered in this focused on determining whether a self-efficacy based intervention decreases burnout, increase engagement and improve performance. Bresó, Schaufeli and Salanova (2011) authored the article. The study assessed a four-month individual cognitive behavioral intervention program to reduce burnout and improve self-efficacy as well as improve performance among university students. The key aim of the intervention was to decrease the level of anxiety that students had before exams in order to promote their belief of self-efficacy. The two control groups that were included were stressed and healthy groups. The results from the findings showed that self-efficacy engagement and performance of students increased in the intervention group when compared to both control groups. It was also determined that there was no significant improvement in the healthy control group. Therefore, the self-efficacy based intervention decreases burnout, increase engagement and improve performance in the stressed group

### Differences between experimental and quasi-experimental studies

The existing major difference between experimental and quasi experimental studies is the underlying element where experimental studies randomly assign participants to the existing treatments and control group while in quasi experimental there is are clear outline where each group that is considered is very distinct from the other groups which are included in the study. Based on the study articles that have been considered in this case in the experimental study that was considered, participants are randomly assigned to the existing three groups, which included the control group, one

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combined metformin with rosiglitazone and the other combining metformin with an intensive lifestyle intervention program. The quasi-experimental study in this case has two distinct control groups that were being investigated which include stressed group and healthy group and it is not possible to include a healthy participant in a stressed group. This shows exactly the underlying difference between the two types of studies.